ABSTRACT OF THE DISCLOSURE

Reliable byte stream transfer protocols play an important role in modern networks. The present invention implements such a protocol using credits for flow control and negative acknowledgements for reliable delivery. The credit mechanism uses credit transfer in installments and is immune to the losses or corruptions of intermediate credit installments. Negative acknowledgements are used to solicit the retransmission of data stream component. The present invention provides full compatibility at the programming interface with reliable byte transfer protocols, such as TCP, and also allows full interoperability among hosts running the aforesaid standard protocol or the protocol of the present invention.